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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,259

09/21/2005

Masahiro Hagiwara

Q90407

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23373 7590 12/23/2008
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,259	Applicant(s) HAGIWARA ET AL.	
	Examiner D. S. Nakarani	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 9-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/14/2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 26, 2008 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-5 and 9-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo (U. S. Patent 6,329,061 B2) in view of Kobata et al (U. S. Patent 6,673,456 B1).

Kondo discloses a dispersion comprising tin doped indium oxide, plasticizer such as triethyleneglycol-di-2-ethylbutyrate, polyvinyl butyral resin dissolving organic solvent such as ethyl alcohol (i.e. ethanol), propanol, butanol etc. and polyvinyl butyral resin. Kondo discloses an interlayer formed using the dispersion and a glass laminate formed using the interlayer (Col. 7, line 5 to col. 8, line 10). Kondo also suggest addition of other additives to the dispersion (Col. 7, lines 15-16). Kondo fails to identify other additives such as adhesion control agent, chelate, organic acid, sulfate ester based compound, phosphate ester-based compound etc.

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Kobata et al disclose a dispersion of tin doped indium oxide particles having particle diameter ranging from 10 to 80 nm (Col. 8, lines 45-56), plasticizer or solvent, chelate, organic acid, dispersion stabilizer, polyalcohols surfactant and adhesion control agent (Col. 8, line 57 to col. 19, line 20 and Examples). Kobata et al suggest organic solvent which dissolves resin (Col. 14, lines 60-61). Kobata et al disclose an interlayer formed using the dispersion and a glass laminate formed using the interlayer. Kobata et al's chelate (Col. 9, lines 12-25), organic acid (Col. 9, lines 60-65), a sulfate ester-based compounds, a phosphate ester-based compound (Col. 11, lines 14-24) encompasses claimed chelate, organic acid and claimed sulfate ester-based compounds, phosphate ester based compounds. The polyvinyl butyral resin used in the dispersion encompasses claimed polyvinyl alcohol since polyvinyl butyral resin made by acetalizing polyvinyl alcohol and has some residual polyvinyl alcohol.

The claimed properties of the dispersion specifically not disclosed are deemed to be inherent properties. In an event, those properties not inherent, a person of ordinary skill in the art can optimize dispersion to prevent agglomeration of tin doped indium oxide particles since ordinary skill in the art is aware of light scattering due to large particle size (Kobata et al , col. 8, lines 5-13).

Therefore it would have been obvious to a person of ordinary skill in the art at the time of this invention made to utilize disclosure of Kobata et al in the invention of Kondo to utilize additives disclosed by Kobata et al to make the dispersion, interlayer and the glass laminate with desired properties.

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4. Receipt of Information Disclosure Statement filed October 14, 2008 is acknowledged and all recited documents have been made of record.

5. Applicant's arguments filed November 26, 2008 have been fully considered but they are not persuasive. In reference to rejection of claims 1-5 and 8-26 under 35 U.S.C. 103(a) as being unpatentable over Kondo (U. S. Patent 6,329,061 B2) in view of Kobata et al (U. S. Patent 6,673,456 B1), applicants essentially argue that Kondo uses polyvinyl butyral resin as a matrix of the interlayer film and not as a dispersion stabilizer because the amount of polyvinyl butyral is more than 50 wt%. Kobata et al's Examples of dispersion of tin doped indium oxide particles does not include all the components (i) to (iii) of the present invention.

These arguments are unpersuasive because Kobata et al's disclosure is not limited to the Examples. Kobata et al disclose all claimed components. Therefore it is obvious to ordinary skill in the art to optimize the dispersion and to prevent agglomeration of tin doped indium oxide particles. Kobata et al disclose use of 50 wt. parts of polyvinyl butyral resin as dispersant per 100 wt. parts of tin doped indium oxide in Example 54.

6. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE**

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FINAL even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/D. S. Nakarani/
Primary Examiner, Art Unit 1794**

DSN
December 19, 2008.